

# Atlantic Richfield Company

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February 8, 2011

## **CERTIFIED – RETURN RECEIPT REQUESTED**

Ms. Jere Johnson  
Remedial Project Manager  
U.S. Environmental Protection Agency Region 9  
75 Hawthorne Street, SFD-9-1  
San Francisco, CA 94105

**Subject: January 2011 Monthly Report, Yerington Mine Site, Lyon County, Nevada: Administrative Order for Remedial Investigation and Feasibility Study (RI/FS), CERCLA Docket No. 9-2007-0005; Administrative Order on Consent, CERCLA Docket No. 09-2009-0010**

Dear Ms. Johnson:

Pursuant to the above referenced orders issued by the U.S. Environmental Protection Agency - Region 9 (EPA), Atlantic Richfield Company (ARC) has prepared the following monthly report for RI/FS and removal action activities at the Yerington Mine Site (Site) during January 2011.

## **January 2011 Activities**

### Site Security and O&M Activities

- Continued routine Site O&M, security and bird deterrent activities including operation of the propane cannons for the Arimetco ponds (with the exception of the VLT Pond, as directed by EPA). Bird guard towers remained active due to accumulated precipitation in the pumpback well system (PWS) evaporation pond. The “wind dancer” bird deterrent continued as planned to be re-located to lessen the possibility of birds becoming habituated to the “wind dancer”.
- Meteoric water remained in two of the PWS evaporation pond cells: North Cell 0.0 feet; Middle Cell = 0.08 feet; South Cell 0.22 feet PWS remained inactive during temporary shut-down). Continued monitoring of the evaporation pan located near PW-6.
- Arimetco heap leach fluid management system (FMS) pond levels: Phase 1 Pond = 3.5 feet; FMS Evaporation (EPA) Pond = 7.75 feet; VLT Pond = 3.5 feet; Slot 2 Pond = 12.0 feet. No drain-down solutions were transferred from the Slot Pond or Phase I ponds to the FMS pond. After completion of the VLT pond repairs on January 4, Phase III/IV fluids were diverted to the VLT SSP and then transferred to the repaired VLT Pond for storage to alleviate FMS pond freeboard concerns. Leak detector monitoring and pumping, as needed, continued - approximately 24,147 gallons of solution was pumped from the leak detectors. FMS monitoring data are attached.
- BV Nevada personnel discovered unauthorized removal of copper wire from the vicinity of the Arimetco plant on January 10. Motion-detect infrared cameras were subsequently established at various locations around suspected entry points, other intruders were observed in the same area on January 17. Copies of the photographs were provided the Sheriff's Department.

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## **January 2011 Activities - Continued**

### Site Security and O&M Activities - Continued

- A vehicle on Burch Drive damaged the perimeter fence on January 21. Reportedly, the driver of the vehicle was subsequently placed under arrest by the County Sheriff for outstanding warrants.
- Initiated retrofits to Site facilities to support RI activities and continued planning for the relocation of Site O&M personnel to a location north of Burch Drive, including utility location and Integrity Management review activities.

### Other Site Activities

- Quatterra and Entrée Gold personnel were on Site, working in their respective core storage areas.
- BV Nevada personnel continued with planned demolition and salvage activities.
- Joe Sawyer (NDEP) inspected the VLT liner repairs on January 5.
- ARC met with the Yerington Mason Valley Fire Department on January 18 for a Site tour and a discussion regarding future emergency response measures.

### Site Characterization

- Site-wide monthly groundwater elevation measurements were obtained January 24-26.
- A new pressure transducer was installed in the Pit Lake on January 20, 2011. A pit lake water elevation of 4,223.51 feet amsl was recorded on January 26, 2011 from the new pressure transducer, an increase of 0.31 feet since December 30, 2010. The pit lake elevation has risen 3.476 feet since January 26, 2010.
- Continued meteorological monitoring at the AM-6 location including wind speed/direction, temperature, relative humidity, barometric pressure, precipitation and solar radiation.
- Submitted the revised draft text of the Baseline Human Health Risk Assessment (HHRA) for the Inhalation Pathway on January 21.
- No new residences were added to the bottled water program in January.
- The following changes were made to the domestic well program: a signed access agreement was received for two new residences (DW-180 and DW-181).
- Continued compilation of monitoring data for inclusion in the Annual Site-wide Groundwater Monitoring Report and Domestic Well Monitoring Report. Prepared for the start of the 1Q 2011 Site-wide groundwater monitoring and domestic well monitoring programs.
- Continued the 2010 monitor well installation program (see attached progress update). Monitor wells B/W-2D2, B/W-2D3, B/W-2B, B/W-27D3, B/W-32S, B/W-32I, B/W-32D1, B/W-40S, B/W-40D1, B/W-45S, B/W-45I, B/W-53S, B/W-53I, B/W-60S, B/W-62D6, B/W-67S, B/W-67I, B/W-67D1, B/W-67D3, B/W-6B (re-drill), MW-5I, MW-5D2, MW-5D3 and MW-5B were installed.
- Monitor wells B/W-1D4, B/W-1B, B/W-27DI, B/W-27D3, B/W-31S1, B/W-31S2, B/W-31I, B/W-31D1, B/W-34S, B/W-34I, B/W-34D, B/W-34B, B/W-37D, B/W-39B, B/W-40S, B/W-40D1, B/W-40D3, B/W-43S, B/W-45S, B/W-45I, B/W-45D, B/W-53I, B/W-53B, B/W-60S, B/W-60I, B/W-60D2, B/W-60D5, B/W-62S, B/W-62D1, B/W-62D5, B/W-64S, B/W-64I, B/W-64D, B/W-66S, B/W-66I, B/W-66D, B/W-66D5, B/W-67S, B/W-67D3, MW-5I, MW-5D2, MW-5D3, MW-5B were developed.
- Slug testing of developed monitor wells continued. The installation of dedicated bladder pumps in new wells ahead of the 1Q monitoring event was initiated, and the surveying of newly constructed monitor wells surveying commenced. Zonal sample results were received for B/W-2, B/W-27, B/W-34, B/W-41, B/W-45, B/W-53, B/W-60, B/W-64, B/W-66, B/W-67, and MW-5.
- Monthly surface water sampling was conducted on January 31.
- Spectrum Geophysics initiated the compilation of the geophysical investigation report.
- Provided technical comments on the Draft Supplemental Remedial Investigation Report for Arimetco Facilities dated October 2010.
- Continued routine database management activities.
- Continued Site wildlife surveys, data management and wildlife observation reports.

### **January 2011 Activities - Continued**

#### AOC Removal Actions

- EPA, ARC and USA Environment personnel conducted a final inspection of the transite pipe, evaporation pond cover and Process Area removal actions on January 20. Continued compilation of the draft removal action completion reports for the three removal actions.
- Continued to compile geochemical, plant growth parameter and geotechnical laboratory data for on- and off-Site materials collected pursuant to the EPA-approved Cover Materials Characterization Work Plan.

### **Planned February/March 2011 Activities**

#### Site Characterization

- Continue Site wildlife surveys, maintenance of wildlife observation data and preparation of wildlife observation reports.
- Continue groundwater elevation and pit lake level monitoring.
- Continue compilation of, and submit, the 2010 annual Site-wide groundwater monitoring and domestic well monitoring reports.
- Conduct the 1Q 2011 Site-wide groundwater and domestic monitoring well programs.
- Complete borehole drilling, zonal sampling and monitor well installations pursuant to the revised 2010 Monitor Well and Ag Fields Work Plans including well development, slug testing and wellhead surveying activities. Install pressure transducers in new wells identified by EPA. Initiate preparation of a data summary report for all 2010 groundwater investigation activities. Cleanup and restore drilling and well installation sites upon the completion of field work, as appropriate.
- Coordinate equipment set-up at Hazen Research Labs for aquifer solids testing
- Initiate development of the On-Site Monitor Well Work Plan.
- Submit the Process Areas geophysical survey/utility investigation report in the Process Areas, and meet with EPA to discuss the results and next phase of geophysical surveys and related investigations. Meet with EPA to discuss the Process Areas RI Work Plan.

#### AOC Removal Actions

- Complete and submit the three draft removal action completion reports and finalize the reports, pending EPA comments.
- Complete and submit the 2010 Annual O&M Report.
- Complete and submit the Cover Materials Data Summary Report.
- Submit the updated bird mitigation protocol to USFWS after receiving approval of the changes from EPA.

If you have any questions or comments about the January 2011 monthly report, please contact me at (714) 228-6774 or via e-mail at [jack.oman@bp.com](mailto:jack.oman@bp.com).

Sincerely,



Jack Oman  
Project Manager

Attachments

cc: Dave Seter, EPA – via electronic mail  
Jacquelyn Hayes, EPA – via electronic mail  
Svetlana Zenkin, EPA – via electronic mail  
Roberta Blank, EPA – via electronic mail  
Andrew Helmlinger, EPA – via electronic mail  
Tom Dunkelman, EPA – via electronic mail  
Joe Sawyer, NDEP – via electronic mail  
Tom Olsen, BLM – via electronic mail  
Dan Newell, City of Yerington – via electronic mail  
Phyllis Hunewill, Lyon County Commissioner – via electronic mail  
Richard Faber, Lyon County Facilities Engineering – via electronic mail  
Tom Grady, Nevada State Assembly – via electronic mail  
Justin Whitesides, YPT – via electronic mail  
Chairman Emm, YPT – via electronic mail  
Dietrick McGinnis, McGinnis and Associates – via electronic mail  
Tom Bowden, Ridolfi, Inc. – via electronic mail  
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